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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/758,038	01/16/2004	In Cheol Jeong	0630-1938P	6144
2292	7590	07/01/2005	EXAMINER	
BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747			KYLE, MICHAEL J	
			ART UNIT	PAPER NUMBER
			3677	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/758,038

Applicant(s)

JEONG ET AL.

Examiner

Michael J. Kyle

Art Unit

3677

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/16/2004
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Specification***

1. The specification is objected because the last line (25) of page 6 states "The rear surface of the case 16". Examiner believes that "case" should be "drum", as the case is referenced with numeral 14 and the drum is referenced with numeral 16 in the rest of the specification.

Additionally, from figure 5, it appears the first housing 42 has bolt 50 that is engaged with the drum, not the case.

### ***Claim Objections***

2. Claim 4 is objected to because of the limitation that the first housing has a portion with a bolt hole fixed at the rear surface of the case. As best understood by the examiner, this portion is fixed at the rear surface of the drum, not the case. Examiner references figure 5 where it appears the first housing is fixed to the rear surface of the drum by bolt, not the case, as claimed.

3. Claim 10 is objected to because the limitations "the insertion groove" and "the stopping protrusion" lack antecedent basis.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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5. Claims 1-11 are rejected under 35 U.S.C. 102(b) as being anticipated by Heyder (U.S. Patent No. 5,483,756). Heyder discloses a hinge apparatus of a clothes drier drum comprising a front hinge portion (column 1, lines 66, 6&), and a rear hinge portion (see figure 3) installed between the rear of a case (2) and a rear of a drum (8) such that the rear of the drum swings in vertical and horizontal directions.

6. With respect to claims 2 and 3, Heyder discloses the rear hinge portion to comprise a housing (10, 11) fixed at the center of the drum, a ball bearing (5) in the housing, and a shaft (3). The housing consists of first and second housings (11 and 10, respectively) fixed at the rear of the case (2). A spherical groove (around 5) is formed when the first and second housing are assembled.

7. With respect to claim 4, Heyder discloses a first engaging portion (upper and lower portions of 11, in figure 3) with a bolt hole (shown in figure 3) fixed at the rear surface of the drum (8) and a bolt engaging hole bolt engaged with the second housing (at 12). The holes are formed in a circumferential direction. The first hinge portion (11) is integrally formed at the center of the first engaging portion and has a hemispherical groove where the ball (5) is inserted.

8. With respect to claims 6-8, Heyder discloses one end of the shaft (3) fixed at the ball bearing (see figure 3), and the other end of the shaft has a spiral formed portion (threads) so as to be bolt engaged with the case (2). A base nut (portion around shaft 3, between 4 and 5, in figure 3) is screw engaged with the shaft at an inner surface of the case (2). The base nut is disc shaped and installed at a nut-installed portion at the case (2). A plurality of engaging protrusions (22) are formed at an interval in a circumferential direction.

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9. With respect to claims 9 and 10, Heyder discloses a reinforcing member (1) mounted at an outer surface of the case. A stopping pin (23) is inserted in an insertion groove (of 22) formed in the case and is protruded to the nut-installed portion (area between 4 and 5) such that the stopping pin stops a stopping protrusion (22).

10. With respect to claim 11, the limitations "welding" and "riveting" are process limitation in an apparatus claim, and are given little patentable weight. As long as the prior art is capable of being made or formed from the claimed process, whether explicitly disclosed or not, then the prior art is considered to read on the claim. In this case, the reinforcing member (1) is capable of being fixed to the case (2) by welding or riveting.

### *Conclusion*

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are cited to further show the state of the art with respect to clothes drier drum mounting arrangements and other spherical type hinges: Spahr, Anderson, Fox, Hunt et al, Kimizawa, Horberg et al, Pellerin et al, and Hauch.


12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Kyle whose telephone number is 571-272-7057. The examiner can normally be reached on Monday - Friday, 8:30 am - 5:00 pm.

13. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Swann can be reached on 571-272-7075. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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14. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

mk

  
ROBERT J. SANDY  
PRIMARY EXAMINER